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Veterinary Services

Info Sheet



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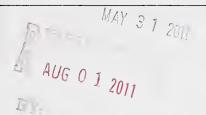
Highlights of Dairy 2007: Salmonella, Listeria, and Campylobacter on U.S. Dairy Operations, 1996–2007

Centers for Epidemiology and Animal Health

In 2007, the National Animal Health Monitoring System (NAHMS) conducted a study of U.S. dairy operations. The Dairy 2007 study collected data on dairy health and management practices from 17 of the Nation's major dairy States.* These States represented 79.5 percent of U.S. dairy operations and 82.5 percent of U.S. dairy cows. The operations were divided into 3 herd-size categories based on the number of milk cows present: small (fewer than 100 cows), medium (100 to 499 cows), and large (500 or more cows).

The following highlights were excerpted from the report Dairy 2007: Salmonella, Listeria, and Campylobacter on U.S. Dairy Operations, 1996–2007. Released in April 2011, this report provides an in-depth look at the prevalence of food safety pathogens on U.S. dairy operations from 1996 to 2007, as identified from three NAHMS studies: Dairy 1996, Dairy 2002, and Dairy 2007.

 In 2007, the percentage of operations on which a milk filter tested positive for Salmonella (24.7 percent) was more than double the percentage of operations on which a bulk-tank milk sample tested positive (10.8 percent). Likewise, the percentage of operations on which a milk filter tested positive for any Listeria (28.3 percent) was more than three times



the percentage of operations on which a bulk-tank milk sample tested positive for any *Listeria* (9.0 percent). Milk filters were not tested in 2002 or 1996.

- The percentage of operations on which bulk-tank milk tested positive for Salmonella by RT-PCR was similar in 2002 and 2007 (11.9 and 10.8 percent, respectively). In addition, the percentage of operations on which bulk-tank milk tested positive for Listeria monocytogenes was similar in 2002 and 2007 (3.8 and 3.7 percent, respectively). Bulk-tank milk was not tested in 1996.
- The percentage of operations positive for Salmonella via fecal culture increased from 1996 to 2007. In 1996, 20.0 percent of operations had any Salmonella-positive cows compared with 30.9 percent of operations in 2002 and 39.7 percent in 2007. In 1996 and 2007, the percentage of cows positive for Salmonella was 5.4 and 13.7 percent, respectively.
- During the Dairy 1996, 2002, and 2007 studies, a higher percentage of operations with 500 or more cows were Salmonella positive than operations with fewer than 100 cows.

California, Idaho, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, New Mexico, New York, Ohio, Pennsylvania, Texas, Vermont, Virginia, Washington, and Wisconsin

^{*} States



- The percentage of Salmonella isolates resistant to at least one antimicrobial decreased from 2002 to 2007 (17.7 and 3.4 percent, respectively).
 Similarly, for any specific antimicrobial to which resistance was observed, a lower percentage of isolates were resistant in 2007 than in 2002.
- In the Dairy 1996, 2002, and 2007 studies, nearly all operations had at least one cow that was shedding *Campylobacter* (100, 97.9, and 92.6 percent of operations, respectively).
- In 2002 and 2007, less than 5 percent of C. jejuni isolates were resistant to any single antimicrobial tested, with the exception of tetracycline. In 2007, 62.4 percent of C. jejuni isolates were resistant to tetracycline compared with 47.5 percent in 2002.

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